

What is claimed is:

1           1. An apparatus for threading a tape wound on a supply  
2 reel and provided with a coupling element at a free end thereof,  
3 said apparatus comprising:

4           a take-up reel;

5           a leader block adapted to establish a connection with said  
6 coupling element of said tape and assuming one of a connected  
7 state and an unconnected state;

8           a carriage transporting said leader block between a first  
9 position near said supply reel and a second position near said  
10 take-up reel through intermediate positions along a moving path;

11          a shaft rotatably connecting said leader block and said  
12 carriage; and

13          a holding element selectively restraining and releasing  
14 rotation of said leader block with respect to said carriage  
15 depending on a state and/or a position of said leader block.

1           2. The apparatus of Claim 1, wherein said holding element  
2 restrains rotation of said leader block when said leader block  
3 is positioned in at least a part of said intermediate positions,  
4 and said holding element releases rotation of said leader block  
5 when said leader block is positioned in said first position.

1           3. The apparatus of Claim 1, wherein said holding element  
2 restrains rotation of said leader block when said leader block  
3 is in said unconnected state and positioned in at least a part  
4 of said intermediate positions, said holding element releases

5 rotation of said leader block when said leader block is positioned  
6 in said first position, and said holding element releases  
7 rotation of said leader block when said leader block is in said  
8 connected state and positioned in at least a part of said  
9 intermediate positions.

1 4. The apparatus of Claim 1, wherein said holding element  
2 comprises a clamp selectively assuming one of a holding position  
3 and a releasing position, said clamp holds said shaft when said  
4 clamp is in said holding position, and said clamp releases said  
5 shaft when said clamp is in said releasing position.

1 5. The apparatus of Claim 4, wherein said clamp assumes  
2 said holding position when said leader block is positioned in  
3 at least a part of said intermediate positions, and said clamp  
4 assumes said releasing position when said leader block is  
5 positioned in said first position.

1 6. The apparatus of Claim 5, wherein said clamp comprises  
2 a spring and a first tab, said spring biases said clamp toward  
3 said holding position, and said clamp moves from said holding  
4 position to said releasing position when said first tab is moved.

1 7. The apparatus of Claim 4, wherein said clamp assumes  
2 said holding position when said leader block is in said  
3 unconnected state and positioned in at least a part of said  
4 intermediate positions, said clamp assumes said releasing  
5 position when said leader block is positioned in said first

6 position, and said clamp assumes said releasing position when  
7 said leader block is in said connected state and positioned in  
8 at least a part of said intermediate positions.

1 8. The apparatus of Claim 7, wherein said clamp comprises  
2 a spring, a first tab and a second tab, said spring biases said  
3 clamp toward said holding position, said clamp moves from said  
4 holding position to said releasing position when said first tab  
5 is moved, and said second tab holds said clamp in said releasing  
6 position by contacting said coupling element of said tape when  
7 said leader block is in said connected state.

1 9. The apparatus of Claim 8, wherein said second tab retains  
2 said coupling element of said tape.

1 10. The apparatus of Claim 1, wherein said holding element  
2 comprises a guide along said moving path receiving and guiding  
3 at least a portion of said leader block.

1 11. The apparatus of Claim 1, wherein said coupling element  
2 comprises a pin, and said leader block has a groove adapted to  
3 receive said pin.

1 12. An apparatus for threading a tape wound on a supply  
2 reel and provided with a coupling element at a free end thereof,  
3 said apparatus comprising:

4 a take-up reel;

5 a leader block adapted to establish a connection with said

6 coupling element of said tape and assuming one of a connected  
7 state and an unconnected state;

8 means for transporting said leader block between a first  
9 position near said supply reel and a second position near said  
10 take-up reel through intermediate positions along a moving path;

11 means for rotatably connecting said leader block and said  
12 means for transporting; and

13 means for selectively restraining and releasing rotation  
14 of said leader block with respect to said means for transporting  
15 depending on a state and/or a position of said leader block.

1 13. A data storage apparatus for threading a tape wound  
2 on a supply reel and provided with a coupling element at a free  
3 end thereof in order to execute a read and/or a write operation  
4 on said tape, said data storage apparatus comprising:

5 a take-up reel;

6 a leader block adapted to establish a connection with said  
7 coupling element of said tape and assuming one of a connected  
8 state and an unconnected state;

9 a carriage transporting said leader block between a first  
10 position near said supply reel and a second position near said  
11 take-up reel through intermediate positions along a moving path;

12 a shaft rotatably connecting said leader block and said  
13 carriage; and

14 a holding element selectively restraining and releasing  
15 rotation of said leader block with respect to said carriage  
16 depending on a state and/or a position of said leader block.